

IN THE SPECIFICATION

Please amend the paragraph that begins at page 10, line 3 of the specification as follows:

Although ATM AAL2 is used at the network edges, e.g., between network edge devices 14 and network access gateways 16, conventional ATM and PNNI networking (e.g., using 53-byte cells) is used within the core ATM network 18. Although the transport of compressed voice within the core may, therefore, be somewhat wasteful of bandwidth, this bandwidth is relatively plentiful and inexpensive as compared to the available bandwidth outside core ATM network 18. Furthermore, the need for functional flexibility within the core network 18 outweighs the desire for bandwidth savings that might be achieved using AAL2. Thus, the network access gateways 16 will be responsible for demultiplexing the AAL2 streams to conventional ATM cells and for mapping these streams to a VP/VC associated with the call. Because the gateways 16 provide this mapping, the switched connection across the core ATM network 18 can be performed using ATM switching and standards-based PNNI SVC networking, which is well known in the art. VSC 12 is involved only at the network edge and manages the voice gateway function between the CPE (e.g., TDM voice switches) and the ATM network ~~40~~18.

Please amend the paragraph that begins at page 11, line 1 of the specification as follows:

At the network edge device 14, incoming voice information from the channels (e.g., DS0s) associated with the CPE are multiplexed to form AAL2 cells by a

multiplexing function 2021. Signaling block 22 provides the call set up processes and this process resembles the typical call set up for a UNI SVC (switched virtual circuit), which is a well-known procedure in the art. Unlike the typical UNI SVC call set up process, however, the present scheme maps (in a manner transparent to the signaling software) the VP/VC associated with a virtual UNI port 24 to a CID on the designated AAL2 VCC that forms part of the virtual UNI virtual path 20. This mapping is performed using a mapping function 26. One example of such a mapping function is as follows:

Type 2 CPS

| <u>Voice Port No.</u> | <u>VPI/VC1</u> | <u>CID</u> |
|-----------------------|----------------|------------|
| 1 | 0/32 | 8 |
| 2 | 0/33 | 9 |
| 3 | 0/34 | 10 |
| • | • | • |
| • | • | • |
| • | • | • |
| 255 | 0/287 | 255 |

Type 3 (e.g., where all Type 2/3 AAL2 cells are mapped ~~to the~~ to the same VCI)

| <u>Protocol</u> | <u>VPI/VC1</u> | <u>CID/UUI</u> |
|--------------------|----------------|----------------|
| ILMI | 0/16 | 1/16 |
| Signalling Channel | 0/5 | 1/17 |

Please amend the paragraph that begins at page 12, line 3 of the specification as follows:

The functional blocks described above also provide reverse operation for duplex communication. For example, blocks 2021 and 32 each provide multiplexing and demultiplexing operations for the AAL2 cells. Further, the functions provided by the mapping blocks 26 and 28 are bi-directional, allowing mappings both to and from the

AAL2 streams. Further, the signaling units 22 and 30 and network management interface blocks 34 are fully bi-directional.

Please amend the paragraph that begins at page 13, line 5 of the specification as follows:

Thus, a scheme for using a Virtual UNI to allow standards-based signaling protocols to be used to manage the addition and deletion of AAL2 CIDs associated with sub-multiplexed AAL2 cells has been described. In the foregoing specification, the invention has been described with reference to specific exemplary embodiments thereof. It will, however, be clear that various modifications and changes may be made thereto without departing from the broader spirit and scope of the invention as set forth in the appended claims. For example, in addition to using a Virtual UNI, it is possible to map all signaling, control and/or AAL2 sub-cell payloads into a signal VC as shown in **Figure 3**. The AAL2 multiplexer/demultiplexer 2021, VP/VC-to-CID mapper 26, Q.2931 signaling block 22 and ILMI interface block 34 operate in the fashion discussed above. Data is passed to the CID multiplexer 40 from the VP/VC-to-CID mapper 26 using Type 2 messages. Signaling and network management messages are passed from the signaling block 22 and interface block 34, respectively, using AAL5 Type 3 messages. The CID multiplexer 40 may then multiplex these messages onto a signal VC, the ILMI and Q.2931 messages being carried within the AAL2 VC using the Frame mode service as defined in ITU Recommendation I.366.2, section 8.3. The specification and drawings are, accordingly, to be regarded in an illustrative rather than a restrictive sense.

IN THE DRAWINGS

Enclosed are annotated sheets of the drawings showing proposed changes to Figures 2 and 3 of the drawings. Replacement sheets incorporating the changes are also enclosed.

In Figure 2 of the drawings, the box labeled as "AAL2 MUX/demux" has had the reference number corrected to be 21 instead of 20. This corrects an obvious error given that the virtual UNI in Figure 2 bears the reference number 20.

Figure 3 has been amended to correct obvious errors. "CIP" has been corrected to read "CID." Reference numbers 24, 22, 26, and 21 have been added to respective boxes ILMI, Q.2931, VP/VC -to- CID Mapper, and AAL2 mux/demux, given that those boxes lacked reference numbers.